



Key points:

- lesbian, gay, bisexual and transgender (LGBT) communities are under-represented in current surveys used to monitor tobacco use
- although large data gaps exist, population-based studies of the LGBT community suggest much higher smoking rates than in the general population
- higher smoking rates mean a higher burden of tobacco-related disease and mortality
- people who are HIV positive are significantly more likely to smoke than HIV negative individuals^{1, 2}
- smoking further impairs the health of people with HIV, AIDS and blood-borne viruses so cessation should be a key part of health care provision
- most smoking begins in adolescence; despite higher rates of smoking by LGBT youth effective methods of identifying and engaging with them have yet to be identified.

LGBT communities in Scotland³

There is no LGBT population information specific to Scotland but in a 2010 Office of National Statistics (ONS) sexual identify survey⁴ of 238,206 people in the UK 1% identified themselves as gay or lesbian and 0.5% as bisexual. However, the survey's statistics are yet to be assessed by the UK Statistics Authority and the real figure could also be higher because of problems with self-reporting. A 2005 Department of Trade and Industry final impact assessment on the Civil Partnership Act of 2004⁵ suggested that gay and bisexual people constitute 5 - 7% of the adult population in the UK. There is no reliable information on the number of transgendered people⁶. The absence of baseline data is in itself an obstacle to meeting the needs of LGBT communities and measuring progress in equality but it is hoped that a clearer picture will emerge from the ongoing 2008 –11 Scottish Health Survey⁷.

Smoking prevalence in LGBT communities

In Scotland almost a quarter of the population smokes⁸. There is a general perception that smoking rates are higher for LGBT communities but there are no reliable statistics for Scotland. Research from America suggests that smoking prevalence in LGBT communities may be far higher than that of the general population^{9, 10}. Sections of the LGBT population may have a higher smoking prevalence because of daily stress caused by homophobia and discrimination¹¹ (there is evidence that smoking causes rather than relieves stress^{12, 13}). One American study suggested that younger LGBT people were more likely to be depressed, lonely, isolated, victimised or discriminated against, attempt suicide, and be physically or verbally victimised compared to

their heterosexual counterparts¹⁴. Other theories for higher smoking prevalence in LGBT communities include the stresses caused by being different; subject to homophobia; anti-gay violence; lack of support from family and friends; and body image issues, such as fear of weight gain¹⁵. Homophobia may also lower self-esteem and undermine a person's ability to avoid pressures to drink or smoke¹⁶.

Health risks of tobacco and exposure to second-hand smoke

In Scotland, 23% of all male deaths, 25% of all female deaths, 90% of lung cancer deaths in men aged over 35 years and 89% of lung cancer deaths in women aged over 35 can be directly attributed to tobacco use¹⁷. 22 years of life are lost on average among men and women in middle age (35-69) from smoking¹⁸. There is clear evidence to link tobacco to lung cancer but there is also evidence of an association with cancer of the kidney, cancer of the larynx and head and neck, breast cancer, bladder, oesophagus, pancreas and stomach cancer. There is also some evidence suggesting an increased risk of myeloid leukaemia, squamous cell sinonasal cancer, liver cancer, childhood cancers and cancers of the gall bladder, adrenal gland and small intestine. Tobacco can also be linked to increased risks of cardiovascular disease, stroke, peripheral vascular disease, respiratory ailments, common cold and bronchitis, chronic obstructive pulmonary disease, emphysema and chronic bronchitis. Additionally, tobacco has been linked to an increased risk of reproductive disorders, miscarriage, low birth weight and sudden infant death syndrome (SIDS), cognitive dysfunction and impotence.

Health interventions for gay and bisexual men have tended to focus on sexually transmitted diseases (STDs) and HIV. However, as cancer and heart disease (heart attack, hypertension, stroke, arteriosclerosis) are the most significant causes of death and disease it is important not to ignore smoking as it greatly increases those risks for both men and women in LGBT communities.

Second-hand smoke (SHS or passive smoking) is smoke from other people's tobacco and breathing it in brings non-smokers many of the same health risks as active smoking. Exposure to SHS increases the risk of fatal and non-fatal coronary heart disease in non-smokers by about 30%¹⁹. Compared with unexposed non-smokers, non-smokers exposed to SHS have blood chemistry similar to that of active smokers²⁰. Just thirty minutes of exposure to second-hand smoke can cause heart damage similar to that of habitual smokers; research²¹ indicates that non-smokers' heart arteries show a reduced ability to dilate, diminishing the ability of the heart to get blood. In addition, the same half hour of second-hand smoke exposure activates blood platelets, which can initiate the process of atherosclerosis (blockage of the heart's arteries) that leads to heart attacks. These effects may explain other research showing that non-smokers regularly exposed to SHS suffer death or disease rates 30% higher than those of unexposed non-smokers²².

Tobacco use in HIV and blood borne viruses

A recent study²³ did not find an association between smoking cigarettes and HIV disease progression as measured by CD4 cell count and viral load (VL). Nevertheless, smoking is an important modifiable lifestyle factor people for anyone whose health is already comprised.

Cigarettes themselves could be the direct source of exposure to a wide array of bacteria harmful to human health among smokers and other people exposed to second-hand smoke²⁴. Smoking significantly increases the likelihood and rate of developing oral thrush and bacterial pneumonia in smokers with HIV²⁵. The bacteria that causes mycobacterium avium complex (MAC), a life-threatening infection affecting as many as 40% of people with HIV not only was recovered from the tobacco, cigarette paper and filters of four major brands of cigarettes but even survived the smoking process²⁶.

Some protease inhibitors (PIs) used to treat HIV can raise blood lipid (fat) levels so smoking compounds an already increased risk of heart disease²⁷. The development of lung cancer among HIV-infected women appears to be very strongly correlated with tobacco exposure²⁸ and for both men and women HIV infection is significantly associated with lung cancer, increasing the risk by nearly twofold, although this is overshadowed by smoking, which raises the risk by almost tenfold²⁹.

As smoking contributes to additional health problems and increased death rates in the HIV-infected population, brief advice and referral to stop-smoking support services should be considered a core part of HIV health care provision³⁰. According to the gay men's health charity GMFA³¹, 'there is a small theoretical risk of an interaction between Zyban and the class of anti HIV drugs known as protease inhibitors (PIs), which might result in elevated levels of the PI Ritonavir in the blood. It is also possible that the PIs Nelfinavir, Saquinavir and Amprenavir might react similarly. An increase in the level of the PI would do no damage to the HIV treatment's effectiveness, but might make the PI's side effects more severe.

A systematic review³² indicated that there is evidence of a synergistic effect between smoking and hepatitis B virus and hepatitis C virus infection on the risk of developing hepatocellular carcinoma. It is therefore recommended that chronic carriers of hepatitis B and hepatitis C avoid smoking.

Support to stop smoking

Giving up smoking has immediate and long-term health benefits for smokers and for the health of those exposed to second-hand smoke.

Many pharmacies/local chemists are able to provide advice and support. Where appropriate, the pharmacist can identify the most suitable nicotine replacement therapy (NRT) and some pharmacies even run NHS-funded stop smoking services.

People who smoke have a much better chance of giving up smoking if they get support to do so, There are lots of different ways to find support: :

- through the local doctor's surgery
- phone free to Smokeline on **0800 84 84 84** (9am to 9pm, seven days a week). Smokeline advisers provide free advice and information for anyone who wants to stop smoking, or who wants to help a loved one to quit. Smokeline also provides information about the free stop smoking services provided by every health board in Scotland
- request stop smoking leaflets, a magazine and a DVD from Smokeline either by calling the helpline, or by texting 'QUIT' to 83434
- or visit www.canstopsmoking.com and enter a postcode to find the nearest stop smoking service
- use web chat support (9am to 9pm) at www.canstopsmoking.com/WebChat.htm
- download smoking apps and desktop widgets at <http://smokefree.nhs.uk/quit-tools/>

Further information

In July 2010, PATH (Partnership Action on Tobacco and Health) published a report into smoking within and stop-smoking service provision for the LGBT population in Scotland. This report identified a gap in raising the issue of smoking within organisations which cater (in whole or in part) for members of the LGBT community, eg voluntary organisations for those living with HIV.

Available to download from:

[www.ashscotland.org.uk/projects/partnership-action-on-tobacco-health-\(path\)/lgbt-report-july-2010](http://www.ashscotland.org.uk/projects/partnership-action-on-tobacco-health-(path)/lgbt-report-july-2010).

More information about the links between smoking and HIV can be found at the gay men's health charity website:

www.gmfa.org.uk/positive/looking-after-yourself/smoking#smoking

In 2003, Stonewall Scotland (the LGBT rights lobbying organisation) produced a report on the health of LGBT people in Scotland. It can be accessed via:

www.stonewall.org.uk/documents/Towards_Healthier_LGBT_Scot.pdf

In 2007, the Lesbian & Gay Foundation in England published a report 'LGB smoke free' which outlined the benefits of quitting:

www.lgf.org.uk/uploads/pdf/campaigns/LGB%20Smoke%20Free.pdf

The United States has its own LGBT tobacco control network with links to many useful resources: <http://lgbttobacco.org/>

References

¹ Craib, K.J.; Schechter, M.T.; Montaner, J.S.; et al. **The effect of cigarette smoking on lymphocyte subsets and progression to AIDS in a cohort of homosexual men.** Clinical and Investigative Medicine (1992). 15(4):301- 308. www.ncbi.nlm.nih.gov/pubmed/1516287 [Accessed 22.03.11]

- ² Burns, D.N.; Kramer, A.; Yellin, F.; Fuchs, D.; Wachter, H.; DiGirola, R.A.; Sanchez, W.C.; Grossman, R.J.; Gordin, F.M.; and Biggar, R.J. **Cigarette smoking: A modifier of human immunodeficiency virus type-1 infection.** *Journal of Acquired Immune Deficiency Syndrome* (1991). 4(1):76-83. www.ncbi.nlm.nih.gov/pubmed/1670588 [Accessed 22.03.11]
- ³ Partnership Action on Tobacco and Health. **Stop-smoking service provision for Lesbian, Gay, Bisexual and Transgender (LGBT) communities in Scotland**, ASH Scotland, Edinburgh (2010). Available from: [www.ashscotland.org.uk/projects/partnership-action-on-tobacco-health-\(path\)/lgbt-report-july-2010](http://www.ashscotland.org.uk/projects/partnership-action-on-tobacco-health-(path)/lgbt-report-july-2010) [Accessed 09.03.11]
- ⁴ Office of National Statistics. **Measuring Sexual Identity: An Evaluation Report.** September 2010 www.statistics.gov.uk/articles/nojournal/measuring-sexual-identity-report.pdf [Accessed 09.03.11]
- ⁵ Department of Trade and Industry. **Final Regulatory Impact Assessment: Civil Partnership Act 2004** <http://webarchive.nationalarchives.gov.uk/+http://www.berr.gov.uk/files/file23829.pdf> [Accessed 09.03.11]
- ⁶ NHS Health Scotland/ScotPHO. **Dimensions of diversity: population differences and health improvement opportunities.** Edinburgh: NHS Health Scotland (2010). Available online at: www.scotpho.org.uk/home/Publications/scotphoreports/pub_diversityreport.asp [Accessed 09.03.11]
- ⁷ The Scottish Government. **Scottish Health Survey.** Edinburgh. Online: www.scotland.gov.uk/Topics/Statistics/Browse/Health/scottish-health-survey [accessed 11.03.11]
- ⁸ Scottish Government. **Scotland's People - Annual report: results from 2009 Scottish Household Survey** [online] (2010). Available from: www.scotland.gov.uk/Publications/2010/08/25092046/0 [Accessed 10.03.11]
- ⁹ Gruskin E.P., Greenwood G.L., Matevia M., Pollack L.M., & Bye L.L. **Disparities in smoking between the lesbian, gay, and bisexual population and the general population in California.** *American Journal of Public Health*, (2007) 97(8), 1496-1502. <http://ajph.aphapublications.org/cgi/reprint/97/8/1496.pdf> [Accessed 22.03.11]
- ¹⁰ Ryan, H., Wortley, P.M., Easton, A., Pederson, L., & Greenwood, G. **Smoking among lesbians, gays, and bisexuals: A review of the literature.** *American Journal of Preventive Medicine* (2001). 21(2):142-9. [www.ajpm-online.net/article/S0749-3797\(01\)00331-2/abstract](http://www.ajpm-online.net/article/S0749-3797(01)00331-2/abstract) [Accessed 22.03.11]
- ¹¹ Neisen, J. **Healing from cultural victimization: Recovery from shame due to heterosexism.** *Journal of Gay and Lesbian Psychotherapy* (1993) 2(1):49-63. www.informaworld.com/smpp/content~db=all~content=a904650238 [Accessed 22.03.11]
- ¹² Parrott A. C. **Does cigarette smoking cause stress?** *American Psychologist* 1999; **54**: 817–20. www.tobaccopr.org/download/file/stress.pdf [Accessed 22.03.11]
- ¹³ McEwen A., West R., McRobbie H. **Motives for smoking and their correlates in clients attending Stop Smoking treatment services.** *Nicotine & Tobacco Research* 2008; **10**: 843–50. <http://ntr.oxfordjournals.org/content/10/5/843.abstract> [Accessed 22.03.11]
- ¹⁴ **National Association of LGBT Community Centers. Tobacco Program Final Report, 2003.** Available at: www.lgbttobacco.org/resources.php?ID=all [Accessed 22.03.11]
- ¹⁵ Fish, J. **Reducing health inequalities for lesbian, gay, bisexual and trans people - briefings for health and social care staff** (for the DH Sexual Orientation and Gender Identity Advisory Group) (2007). Department of Health, London. Online: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_078347 [Accessed 23.03.11]
- ¹⁶ Ibid
- ¹⁷ Boreham J. **Male and female smoking-attributed deaths and total deaths, Scotland: 1995, 2008.** Oxford: CTSU. 2010. www.ctsu.ox.ac.uk/~tobacco/SMK_P5_6.pdf [Accessed 22.03.11]
- ¹⁸ Health Scotland, ISD Scotland and ASH Scotland. **An atlas of tobacco smoking in Scotland: estimated smoking prevalence and smoking-attributable deaths within Scotland.** NHS Scotland/Scottish Public Health Observatory. 2007. Available from: www.scotpho.org.uk/nmsruntime/saveasdialog.asp?IID=3907&SID=3256 [Accessed 10.03.11]

- ¹⁹ US Department of Health and Human Services, **Women and smoking: a report of the Surgeon General**. Washington, DC: US Government Printing Office, 2001. www.surgeongeneral.gov/library/womenandtobacco/ [Accessed 02.03.11]
- ²⁰ Panagiotakos DB, Pitsavos C, Chrysoshoou C, Skoumas J, Masoura C, Toutouzas P, et al. **Effect of exposure to second-hand smoke on markers of inflammation: the ATTICA study**. American Journal of Medicine 2004;116: 145-50. [www.amjmed.com/article/S0002-9343\(03\)00656-9/abstract](http://www.amjmed.com/article/S0002-9343(03)00656-9/abstract) [Accessed 02.03.11]
- ²¹ Otsuka, R., et al. **Acute effects of passive smoking on the coronary circulation in healthy young adults**, Journal of the American Medical Association, 286: 436-441, 2001. Available at: www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11466122&dopt=Abstract [Accessed 23.03.11]
- ²² Burghuber, O., et al. **Platelet sensitivity to prostacyclin in smokers and non-smokers**, Chest, 90: 34-38, 1986. www.ncbi.nlm.nih.gov/pubmed/3522121 [Accessed 23.03.11]
- ²³ Kabali, C et al. **Recent cigarette smoking and HIV disease progression: no evidence of an association**. AIDS Care. 2011 Mar 10:1-10. www.ncbi.nlm.nih.gov/pubmed/21400309 [Accessed 21.03.11]
- ²⁴ Sapkota AR, Berger S, Vogel TM. **Human pathogens abundant in the bacterial metagenome of cigarettes**. Environmental Health Perspectives, 2010. 118:351-356. <http://ehp03.niehs.nih.gov/article/info%3Adoi%2F10.1289%2Fehp.0901201>
- ²⁵ Conley, L.J.; Bush, T.J.; Buchbinder, S.P., et al. **The association between cigarette smoking and selected HIV-related medical conditions**. AIDS (1996) 10:1121-112. www.ncbi.nlm.nih.gov/pubmed/8874629 [Accessed 22.03.11]
- ²⁶ Eaton, T, Falkinham, J O, von Reyn, C F. **Recovery of Mycobacterium avium from cigarettes**. Journal of Clinical Microbiology. 1995 October; 33(10): 2757–2758. www.ncbi.nlm.nih.gov/pmc/articles/PMC228569/
- ²⁷ Duong M, Buisson M, Cottin Y, et al. **Coronary heart disease associated with the use of human immunodeficiency virus (HIV)-1 protease inhibitors: Report of four cases and review**. Clinical Cardiology 2001;24:690-694. <http://onlinelibrary.wiley.com/doi/10.1002/clc.4960241011/pdf> [Accessed 22.03.11]
- ²⁸ Levine AM et al. **HIV as a risk factor for lung cancer in women: data from the Women's Interagency HIV Study**. Journal of Clinical Oncology (online edition), 2010. <http://jco.ascopubs.org/content/28/9/1514.abstract> [Accessed 22.03.11]
- ²⁹ Sigel K et al. **HIV infection is an independent risk factor for lung cancer**. Seventeenth Conference on Retroviruses and Opportunistic Infections, abstract 30, San Francisco, 2010. www.hivandhepatitis.com/2010_conference/croi/docs/0226_2010_b.html [Accessed 22.03.11]
- ³⁰ Lifson, A R et al & the INSIGHT SMART Study Group, **Smoking-related health risks among persons with HIV in the strategies for management of antiretroviral therapy clinical trial**. American Journal of Public Health Vol. 100; No. 10: P. 1896-1903. www.medscape.com/viewarticle/736669 [Accessed 21.03.09]
- ³¹ GMFA 'Beating the craving' (online) www.gmfa.org.uk/quitsmoking/beating-the-craving/ [Accessed 21.03.11]
- ³² Chuang SC, Lee YC, Hashibe M, Dai M, Zheng T, Boffetta P. **Interaction between cigarette smoking and hepatitis B and C virus infection on the risk of liver cancer: a meta-analysis**.by Cancer Epidemiology: Biomarkers and Prevention. 2010. May;19(5):1261-8. www.ncbi.nlm.nih.gov/pubmed/20447919 [Accessed 22.03.11]

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